

Name: _____

at1110paper_practice_test (v115)

1. Expand the following expression into standard form.

$$(7x - 5)(7x + 5)$$

$$\begin{array}{r} 49x^2 + 35x - 35x - 25 \\ 49x^2 - 25 \end{array}$$

2. Expand the following expression into standard form.

$$(2x - 5)^2$$

$$\begin{array}{r} 4x^2 - 10x - 10x + 25 \\ 4x^2 - 20x + 25 \end{array}$$

3. Factor the expression.

$$x^2 - 12x + 35$$

$$(x - 7)(x - 5)$$

4. Expand the following expression into standard form.

$$(8x + 7)(4x + 5)$$

$$\begin{array}{r} 32x^2 + 40x + 28x + 35 \\ 32x^2 + 68x + 35 \end{array}$$

5. Solve the equation with factoring by grouping.

$$15x^2 + 6x - 20x - 8 = 0$$

$$(3x - 4)(5x + 2) = 0$$

$$x = \frac{4}{3} \quad x = \frac{-2}{5}$$

6. Solve the equation.

$$10x^2 + 29x + 33 = 5x^2 - 3x - 2$$

$$5x^2 + 32x + 35 = 0$$

$$(5x + 7)(x + 5) = 0$$

$$x = \frac{-7}{5} \quad x = -5$$

7. Solve the equation.

$$(4x + 5)(7x + 3) = 0$$

$$x = \frac{-5}{4} \quad x = \frac{-3}{7}$$

8. Factor the expression.

$$25x^2 - 36$$

$$(5x + 6)(5x - 6)$$